

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for performing motion estimation of image blocks on image frames in video image compression using an associative memory device including a directory memory having memory locations and an output memory including a plurality of memory locations, each of the plurality of memory locations of the output memory corresponding to at least one memory location of the directory memory, which wherein the method comprises ~~the following stages:~~

determining a location of an the image block to be coded on a current frame; is
~~determined on frame N;~~

determining a the search area on a previous frame corresponding to the location of the image block on the current frame, the search area including a plurality of image blocks, each of the plurality of image blocks having a location on the previous frame; in question is determined
~~on frame N-1;~~

determining the image block average values are determined in for the locations areas of the plurality of image blocks included in the search area in question by using a shift of predetermined size,

arranging the plurality of image blocks included in the search area in question are
~~arranged in a predetermined order on the basis of based on the image block average values of the~~
plurality of image blocks in question;

~~an alternative best matching with the image block to be coded is searched among the image blocks of the search area in question, characterised in that the method further comprises the following stages:~~

sorting the plurality of image blocks included in the search area ~~are sorted by storing the image block average values of the plurality of image blocks in question in the memory locations of the directory memory of an the associative memory device in an ascending or descending order and by storing in the memory location of the output memory corresponding to each memory location of the directory memory the location data of the image block blocks whose having an image block average value corresponds~~ corresponding to the image block average value stored in the memory location of the directory memory; ~~in question,~~

using the image block average value of the image block to be coded as a key word of for ~~the aforementioned associative memory device; and, the image block average value of the image block to be coded is used,~~

~~the group of the image blocks to be processed is restricted on the basis of a mean error,~~
and

~~the best match is searched among the image blocks included in the restricted group of images by using the partial distance elimination method~~

searching for an image block best matching the image block to be coded among the plurality of image blocks included in the search area using a partial distance elimination method,
the search area being restricted based on a mean error.

2. (Currently Amended) Method as defined in claim 1, ~~wherein characterised in that the method further comprises the stage:~~

~~as search area,~~ a predetermined area of regular shape around the image block to be coded is used as the search area.

3. (Currently Amended) Method as defined in claim 1, ~~characterised in that the method further comprising comprises the following stages:~~

~~defining an area is defined that is comprised of an area of one or more objects moving fast quickly~~ between successive image frames,

and using the said area is used as the search area.

4. (Currently Amended) Method as defined in claim 1, ~~characterised in that the method further comprising comprises the following stage:~~

~~determining the possible location areas of the image blocks are determined by~~ using a shift of one pixel, a half of a pixel or other fractional shift.

5. (Currently Amended) A system for performing motion estimation of image blocks from a first image frame to a second image frame in video image compression, the first image frame including a search area having a plurality of image blocks and the second image frame including an image block to be coded, wherein the ~~which~~ system comprises:

~~means of determining (1) by means of which the image block average values are determined in the of locations areas of the image blocks included in the search area corresponding to a the location of the image block to be coded by using a predetermined shift on the first image frame; prior to the image frame including the image block to be coded in question;~~

means of sorting ~~(2)~~ by using which the image blocks included in the search area
~~are sorted on the basis of~~ based on the image block average values of the image blocks; ~~in~~
~~question~~, and

means of searching ~~(3)~~ by using which the for a variant best matching image
block with for the image block to be coded ~~is searched among the image blocks included~~
in the search area; ~~characterised in that the system further comprises:~~

an associative memory device ~~(2)~~ by means of which for sorting the image blocks
included in the search area ~~are sorted~~, the associative memory device including a
directory memory having memory locations and an output memory including memory
locations corresponding with at least one memory location of the directory memory, the
directory memory ~~by storing the image block average values of the image blocks~~
included in the search area in question in the memory locations of the directory memory
~~of the associative memory device in question (2) in an ascending or descending order and~~
~~by the output memory storing in the memory location of the output memory~~
~~corresponding to each memory location of the directory memory the locations data of the~~
~~image blocks whose, each memory location of the output memory storing the location of~~
an image block having an image block average value corresponds to corresponding with
the image block average value stored in the corresponding memory location of the
directory memory in question, and wherein the image block average value of the image
block to be coded is used as a key word of the associative memory device; ~~(2).~~

means ~~(3)~~ for restricting the a group of the image blocks in the search area to be
~~coded on the basis of~~ based on a mean ~~error~~, error; and

means ~~(3)~~ for searching the for a best match among the image blocks included in
the restricted group of images image blocks by using the a partial distance elimination
method.